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**Third Party Outpatient Collection Program:  
Determining Predictors of Payment in Full of Third  
Party Outpatient Billings**

**A Graduate Management Project  
Submitted to the Faculty of  
Baylor University**

**In Partial Fulfillment of the  
Requirements for the Degree  
of**

**Master of Health Administration**

**by**

**Captain Mark A. Metzger, MS**

**August 1993**

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**ABSTRACT**

The purpose of this study was to determine the effects of predictor variables; current procedural terminology (CPT) code, number of CPT codes, third party payer, number of claims, and followup, on payment in full of third party outpatient billings utilizing multiple discriminant analysis. This study examined bills generated for outpatient treatment, from October 1991 through September 1992, for which reimbursement was received by Bayne-Jones Army Community Hospital (BJACH). Two groups were utilized; third party outpatient bills paid in full (n=97) was one group, a random sample of third party outpatient billings (n=100) was the second group. Multiple regression analysis using full and restricted models was utilized to determine the contribution of each predictor variable to payment in full.

Results of the study indicate that third party payer and number of claims are significant predictors of payment in full. The significance of the predictor variable, third party payer, suggests that payment in full varies with both the type of insurance coverage offered by an insurance carrier, and the type of

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coverage selected by the beneficiary. The selection of a particular insurance carrier and subsequent coverage by a beneficiary is an area in which BJACH has no regulatory mechanisms in which to influence. This may be a barrier to ever collecting payment in full for a certain percentage of third party outpatient billings.

The significance of the predictor variable, number of claims, suggests that payment in full varies with the number of claims for treatment submitted to a third party payer on a beneficiary. Initial claims received by third party payers may be utilized to cover initial deductible requirements of policy holders, once deductible requirements are met, payment in full is then paid for subsequent bills.

The major implication of this study is that to maximize payment in full of third party outpatient billings, BJACH should ensure that every beneficiary with third party insurance is identified, the beneficiary's insurance carrier is billed, and reimbursement from the third party payer is received.

## **I. INTRODUCTION**

### **Conditions Which Prompted the Study**

Military Treatment Facilities (MTF) have been required to collect funds from third party payers whose insured received inpatient care in an MTF since 1986. This collection program is known as the Third Party Collection Program (TPCP). Reimbursement for the cost of care is collected from beneficiaries' private insurance companies in the amount payable as though the beneficiary were responsible for the cost of the medical care ("Third Party," 1991). The TPCP is not resourced, and any reimbursements collected prior to 1990 were deposited into the general Treasury ("Third Party," 1991).

The 1990 Defense Authorization Act authorizes the crediting of monies collected under the TPCP initiative to the MTF's operation and maintenance activities ("Army Management," 1991). The ability of commanders to use collected monies to support MTF operations allows commanders to utilize third party collections to the MTF's benefit.

Congress created additional incentives for organizations to actively support the TPCP by including a decrement into the program budget. The program budget document decremented the Fiscal Year (FY) 1992 medical budget by \$23.7 million, and decrements the FY 1993 budget by \$25.1 million ("Third Party," 1991). The TPCP decrement for BJACH for FY 1992 was \$256,000 (Mueller, 1992).

The scope of the TPCP has recently been expanded by Section 713 of Public Law 101-511 (5 November 1990), amending 10 U.S.C. 1095. This significantly expands the authority of the Department of Defense to collect from third party payers. Previously, MTF's used 10 U.S.C. 1095 to collect from a retiree or family member's health insurance for inpatient hospital care. The amendment to 10 U.S.C. 1095 now permits the MTF to collect for both inpatient and outpatient care provided by the MTF. It also allows the MTF to collect against supplemental insurance and motor vehicle accident (MVA) insurance ("Guidance On," 1991).

The Army's FY 1991 billings to insurance companies totalled \$44.6 million; FY 1991 collections totalled \$23.2 million (Noyes, 1992). The total amount

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collected under the TPCP at BJACH for FY 1992 was \$303,659. A breakdown of BJACH TPCP collections is: \$246,756 from inpatient billings, \$43,248 from outpatient billings and \$13,655 from MVA insurance (Mueller, 1992).

BJACH began billing third party payers for outpatient treatment in May 1992. BJACH back billed for outpatient treatment received since 1 October 1991. As of 30 September 1992 approximately 8,000 bills have been sent to third party payers. As of 1 October 1992, reimbursement had been received for 1,996 of those bills. The dollar amount for each bill generated by BJACH for FY 92 was \$77, the maximum charge allowed by an MTF for outpatient care ("FY 92 Medical," 1991). For FY 93 the maximum charge allowed is \$100 ("FY 93 Medical," 1992).

Of the bills for which reimbursement had been received, only five percent were for payment in full. This low payment in full rate warranted the need for this study. The ability to determine the variables contributing to payment in full of third party outpatient bills would enable BJACH to target those

variables in an effort to increase the dollars received by BJACH for use in patient care.

### **Statement of the Management Question**

What are the variables that influence payment in full of third party outpatient billings by third party payers?

### **Review of the Literature**

#### **Outpatient Care**

Outpatient care--health services provided to patients not confined to a bed--is the most common mode of delivery of health services in the United States today (Burns, 1991). In 1988 ambulatory care accounted for 24 percent of total hospital revenues, up from 19.2 percent in 1987 (Burns, 1991).

In 1990, there were approximately 1,800 freestanding diagnostic imaging centers, 4,600 clinics for ambulatory care, and more than 1,000 centers for specialized treatment ("Environmental Assessment," 1991). As a result of technological innovations and improvements in anesthesia, an increasing number of outpatient surgical procedures can be performed. In

1989, 48.5 percent of all surgeries performed at community hospital facilities were outpatient procedures. Of the approximately 14 million outpatient surgeries performed nationwide, 76 percent were done at hospitals, 17 percent at freestanding ambulatory surgery centers not owned by hospitals, and 7 percent in physician offices ("Environmental Assessment," 1991).

Revenue streams. Outpatient services historically have not been covered as extensively as inpatient services in health insurance plans (Burns, 1991). Only after health services research studies demonstrated that certain ambulatory services, such as outpatient surgery and certain diagnostic tests and therapeutic treatments, could substitute for inpatient care, were insurance benefits expanded to pay all or part of the charges or costs for ambulatory services (Burns, 1991). With the continuing national focus on the cost of health care expenditures, outpatient services are not immune from reduced payment levels or less extensive health insurance coverage (Burns, 1991).

Health Insurance

Health insurance is issued by life insurance and casualty insurance companies, as well as companies that only issue health coverage. A recent development in the health insurance field is employers (both public and private) self-insuring. For example, in 1989 Southern California Edison set-up its own provider list of 7,500 physicians to treat its 55,000 employees and retirees at prenegotiated prices (Duggan, 1991).

Number insured. At the end of 1985, over 181 million Americans, 85 percent of the noninstitutional population, were protected by private health insurance (Schramm, 1986). This number includes almost 167 million persons under age 65, representing 80 percent of this age group (Schramm, 1986). More than 14 million older persons, almost 50 percent of the age 65 and older population, have private health insurance policies to supplement benefits through Medicare (Schramm, 1986). Private health insurance coverage is available through: insurance companies, hospital and medical service plans, such as Blue Cross and Blue Shield, group medical plans operating on a prepayment basis, such as health maintenance organizations, and

others (Schramm, 1986). Over 650 insurance companies (including 78 Blue Cross and Blue Shield plans) in the United States are writing health insurance (Aaron, 1991).

To help insure the wise use of health care services, most major medical benefit programs include both deductible and co-insurance provisions. The deductible is the amount the insured individual must pay before benefits begin. After the deductible has been paid the insurance company pays for, depending on the plan, approximately 80 percent of the remaining covered costs, up to the maximum benefit (Schramm, 1986).

Policy provisions. All insurance policies have an insuring clause, an explanation of benefits, and an exclusions and reductions in coverage clause (Schramm, 1986). The insuring clause is the most important item of an individual health policy. The clause defines the benefits to be paid, and the conditions under which they are payable (Schramm, 1986). Insurers have their own forms, fee caps and documentation requirements (Tomsho, 1992).

Bill Coding

All claims for reimbursement sent to third party payers list medical service codes which represent the medical care provided to a patient. These codes are in large part what determines the amount of reimbursement received from a third party payer.

Current Procedural Terminology (CPT) Code. The American Medical Association (AMA) published the first CPT codes in 1966, which listed descriptive terms and identifying codes for reporting medical services ("CPT 1992," 1992; Zuber & Henley, 1992). The fourth edition of the CPT manual was printed in 1991. The CPT manual lists over 7,000 five-digit codes. The code book is the standard for Medicare and virtually all other third party payers (Stevens, 1991).

International Classification of Diseases, 9th Edition, Clinical Modification (ICD-9-CM) Code. The ICD-9-CM code manual lists codes for diagnoses of patients. These numerical codes contain three to five digits plus a decimal. The thought is that by using five digits, a provider can code to the greatest degree of certainty and the highest level of specificity (Voorhees, 1992).

ICD-9-CM codes support reimbursement by indicating that CPT coded procedures are justified for the diagnosis under consideration. If a CPT code does not match the ICD-9-CM code listed on the claim form, the CPT coded procedure may be deemed medically unjustified and the payment for it denied (Voorhees, 1992).

Proper coding. CPT codes are being incorporated by all the major insurance carriers in the United States. In November, 1991, the AMA held training sessions on the 1992 CPT code changes. At that time, major insurance carriers, including Blue Cross/Blue Shield, Aetna, Nationwide, Prudential, Travelers and others announced their unanimous decision to update their coding and billing policies in accordance with 1992 CPT guidelines (Hayward, 1992; Dettwyler & Wolfgang, 1988).

Reviewing billing procedures and determining compliance with the 1992 CPT coding requirements should be a high priority for anyone responsible for the financial viability of a hospital (Hayward, 1992; Mellion, 1992). Because of the increase in cost containment and quality of care related emphasis of organizations, it is important to be aware of

reimbursement issues and CPT terminology for the sake of the hospital and its survival (Bourgeois, 1991).

Lost revenue. Hospitals are understating third party reimbursements by hundreds of thousands of dollars annually as a result of inaccurate or unsophisticated coding processes (Deatsch, 1991). Consultant visits to hospitals and laboratories have indicated that many dollars of revenue are lost each year because of improper coding of medical records (Purvis & Horner, 1991). Conservative estimates are that approximately 10 percent of revenues are lost because of improper coding (Purvis & Horner, 1991; Dettwyler & Wolfgang, 1988). Whether your outpatient has Medicare or private insurance, the safest course is to update to the 1992 CPT changes (Hayward, 1992; Dettwyler & Wolfgang, 1988).

Training. Reimbursement for outpatient treatment, outpatient surgery, ancillary services, diagnostic imaging and other diagnostic services is based in part on fixed payment formulas. These fixed payments are directly tied to the coding and billing function. A review of these billing functions by the medical records department is now imperative (Deatsch, 1991).

It is the medical record coder's responsibility to understand the coding function and to ensure the maximum specificity in the coding process (Deatsch, 1991). Ensuring that the hospital has established a separate charge for all services payable by third party payers can provide significant increases in net revenues (Deatsch, 1991; Voorhees, 1991). Medical record coders should pay attention to issues, such as code gaming, that might promote problems in compliance with government regulations (Voorhees, 1991).

#### Code Gaming

Code gaming is the process of manipulating the medical service code for increased revenue. Estimates of code gaming range from the minuscule to 15 percent of total physician charges. Code gaming could result in losses to the health care industry of \$1 billion to \$2 billion per year (Traska, 1990).

Fragmentation/Exploding. The process of charging for incidental procedures or tests that take little or no additional effort to perform. An example would be a health care provider ordering a batch test of several lab tests, and billing for each lab test as if it had been performed separately (Traska, 1990).

Upcoding. The process of assigning a more complex procedural code, indicating a higher degree of complexity, that may or may not exist (Traska, 1990). An example would be charging for a medical decision making category of moderate complexity when in reality it was of low complexity.

Visit churning. The process of scheduling more patient visits than are necessary for the health of a patient (Traska, 1990). An example would be scheduling followup visits too frequently to be medically justified.

Multiple visit coding. The process of seeing a patient in the emergency room and billing for the emergency room visit, and also billing for a visit to the patient in the hospital, when in reality the patient was only seen once by the physician in the emergency room (Traska, 1990).

#### Third Party Payer Payment Denials

The days of automatic third party reimbursement are past, therefore, hospitals should have standard procedures to insure maximum collection of reimbursements. Many claims are not paid in full because of deductibles and copayments. Additionally,

payment may be totally denied because of a preexisting illness, or for a policy exclusion (Tatken, 1991). While most third party payment denials are legitimate, many denials are not.

Proper documentation. A claim that has the slightest coding and/or documentation error may be a reason for nonpayment or a long delay in reimbursement (Tatken, 1991). Of all health care claims that are rejected, approximately one-third are because they contain administrative errors (Anderson, 1991), therefore, billing offices should have procedures in place to double check bills before mailing. The coding office should become familiar with each third party payer and their requirements for the proper submission of a claim. Additionally, individuals responsible for coding should periodically attend training classes on CPT and ICD-9-CM coding so that they stay current with changes in coding.

Followup. The hospital should track all claims submitted to third party payers. Even the cleanest submissions may have delayed reimbursement. Third party payers should be contacted every 14 days to track the status of claims to get an update and an expected

payment date. Payments received from insurers should be tracked to note payment trends and to identify any trends that indicate unfair insurer tactics, such as unjustified delays in reimbursement or a change in reimbursement rates, that can then be appealed (Tatken, 1991).

Appeal. Most determinations that are appealed are subsequently reversed, therefore, all claims that are denied should be appealed ("How To," 1991). This will help insure that denied claims are for legitimate reasons. Many consultants recommend that health care organizations and providers challenge insurers unilateral fee reductions by resubmitting claims with additional information (Tomsho, 1992).

### **Purpose of the Study**

#### **Purpose Statement**

The purpose of this study was to determine the relationship between payment in full of third party outpatient billings and; CPT code, number of CPT codes, third party payer, number of claims, and followup.

Objectives

- a. Complete literature review specific to outpatient care, insurance, CPT/ICD-9-CM coding, billing functions and accounts receivable management.
- b. Determine variables that are significant predictors of payment in full of third party outpatient billings.
- c. Develop recommendations that target significant predictors of payment in full of third party outpatient billings to increase the dollars received by BJACH for use in patient care.

## II. METHOD AND PROCEDURES

### Data/Data Collection

The people/objects/events for this study were the billing records of patients who received outpatient medical care at BJACH. The population (N=1,996) for this study were bills generated for treatment, from 1 October 1991 thru 30 September 1992, for which reimbursement was received. Data was obtained from the Patient Administration Division (PAD) and Coordinated Care Division (CCD) at BJACH. Patient confidentiality was maintained throughout the study. No identifying patient information was utilized.

### Study Design

#### Operational definitions of variables

Dependent variable. The operational definition of the dependent variable - Payment in full - was whether the payment received from the third party payer was for the full amount billed. Payment in full was a dichotomous variable.

Independent variables. The operational definitions for the independent variables were:

CPT code - The code from the AMA CPT manual for 1992. This was a dichotomous variable.

Number of CPT codes - The number of CPT codes that were listed on the bill to the third party payer. This was a continuous variable.

Third party payer - The third party payer that the bill was sent to. This was a dichotomous variable.

Number of claims - The number of claims submitted to a third party payer on a beneficiary. This was a continuous variable.

Followup - Followup occurred if an individual from BJACH called the third party payer to solicit payment for a bill before reimbursement was received. This was a dichotomous variable.

Control variables. The operational definitions for the control variables were:

Age - In years. This was a continuous variable.

Gender - Male or female. This was a dichotomous variable.

Status - Dependent of active duty member, retiree, or dependent of retiree. This was a dichotomous variable.

Department - Department the patient was seen in.  
This was a dichotomous variable.

Functional equation

The functional equation in this study was:

$$Y = F(X1, X2, X3, X4, X5, X6, X7, X8, X9)$$

Y = Payment in full

X1 = Age

X2 = Gender

X3 = Status

X4 = Department

X5 = Followup

X6 = Third party payer

X7 = Number of claims

X8 = Number of CPT codes

X9 = CPT code

Alternate Hypotheses

The alternate hypotheses for this study were:

Ha1: Payment in full varies as a function of  
CPT code.

Ha2: Payment in full varies as a function of  
number of CPT codes.

Ha3: Payment in full varies as a function of  
third party payer.

Ha4: Payment in full varies as a function of number of claims.

Ha5: Payment in full varies as a function of followup.

### **Statistical Methods**

From the population ( $N=1,996$ ), the total number of third party outpatient bills paid in full ( $n=97$ ) was one group. A control group ( $n=100$ ) was taken from the population of nonpayment in full of third party outpatient bills (Figure 1). The control group was created by taking every eighteenth nonpayment in full record from the population of nonpayment in full.

This study utilized multiple discriminant analysis. When dealing with two groups, the discriminant function is a multiple regression equation with the dependent variable coded as a dichotomous variable (Kerlinger, 1986). Multiple regression analysis was utilized by testing the effects of one X while controlling for the effects of other X variables that may be related to Y.

The method used is as follows:

ModelEquation

Full 
$$Y = a_0U + b_1\text{Age} + b_2\text{Gender} + b_3\text{Retiree} + b_4\text{Dependent} - \text{Retiree} + b_5\text{Dependent} - \text{Active Duty} + b_6\text{Department of Medicine} + b_7\text{Department of Surgery} + b_8\text{Emergency Room} + b_9\text{Department of Family Practice} + b_{10}\text{Followup} + b_{11}\text{AARP} + b_{12}\text{AETNA} + b_{13}\text{BC/BS} + b_{14}\text{ITPE} + b_{15}\text{Oxford} + b_{16}\text{TROA} + b_{17}\text{All Other Insurance Companies} + b_{18}\text{Number of Claims} + b_{19}\text{Number of CPT Codes} + b_{20}92111 + b_{21}99212 + b_{22}99213 + b_{23}99281$$

Restricted 1 
$$Y = a_0U + b_1\text{Age}$$

Restricted 2 
$$Y = a_0U + b_1\text{Age} + b_2\text{Gender}$$

Restricted 3 
$$Y = a_0U + b_2\text{Age} + b_2\text{Gender} + b_3\text{Retiree} + b_4\text{Dependent} - \text{Retiree} + b_5\text{Dependent} - \text{Active Duty}$$

Restricted 4 
$$Y = a_0U + b_1\text{Age} + b_2\text{Gender} + b_3\text{Retiree} + b_4\text{Dependent} -$$

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Retiree +  $b_5$ Dependent - Active Duty +  
 $b_6$ Department of Medicine +  
 $b_7$ Department of Surgery  
+  $b_8$ Emergency Room +  $b_9$ Department of  
Family Practice

Restricted 5  $Y = a_0U + b_1\text{Age} + b_2\text{Gender} +$   
 $b_3\text{Retiree} + b_4\text{Dependent} -$   
Retiree +  $b_5$ Dependent - Active Duty +  
 $b_6$ Department of Medicine +  
 $b_7$ Department of Surgery  
+  $b_8$ Emergency Room +  $b_9$ Department of  
Family Practice +  $b_{10}\text{Followup}$

Restricted 6  $Y = a_0U + b_1\text{Age} + b_2\text{Gender} +$   
 $b_3\text{Retiree} + b_4\text{Dependent} -$   
Retiree +  $b_5$ Dependent - Active Duty  
+  $b_6$ Department of Medicine +  
 $b_7$ Department of Surgery  
+  $b_8$ Emergency Room +  $b_9$ Department of  
Family Practice +  $b_{10}\text{Followup} +$   
 $b_{11}\text{AARP} + b_{12}\text{AETNA} + b_{13}\text{BC/BS} +$   
 $b_{14}\text{ITPE} + b_{15}\text{Oxford} + b_{16}\text{TROA} + b_{17}\text{All}$   
Other Insurance Companies

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Restricted 7  $Y = a_0U + b_1\text{Age} + b_2\text{Gender} +$   
 $b_3\text{Retiree} + b_4\text{Dependent} -$   
 $\text{Retiree} + b_5\text{Dependent} - \text{Active Duty} +$   
 $b_6\text{Department of Medicine} +$   
 $b_7\text{Department of Surgery}$   
 $+ b_8\text{Emergency Room} + b_9\text{Department of}$   
 $\text{Family Practice} + b_{10}\text{Followup} +$   
 $b_{11}\text{AARP} + b_{12}\text{AETNA} + b_{13}\text{BC/BS} +$   
 $b_{14}\text{ITPE} + b_{15}\text{Oxford} + b_{16}\text{TROA} + b_{17}\text{All}$   
 $\text{Other Insurance Companies} + b_{18}\text{Number}$   
 $\text{of Claims}$

Restricted 8  $Y = a_0U + b_1\text{Age} + b_2\text{Gender} +$   
 $b_3\text{Retiree} + b_4\text{Dependent} -$   
 $\text{Retiree} + b_5\text{Dependent} - \text{Active Duty}$   
 $+ b_6\text{Department of Medicine} +$   
 $b_7\text{Department of Surgery}$   
 $+ b_8\text{Emergency Room} + b_9\text{Department of}$   
 $\text{Family Practice} + b_{10}\text{Followup} +$   
 $b_{11}\text{AARP} + b_{12}\text{AETNA} + b_{13}\text{BC/BS} +$   
 $b_{14}\text{ITPE} + b_{15}\text{Oxford} + b_{16}\text{TROA} + b_{17}\text{All}$   
 $\text{Other Insurance Companies} + b_{18}\text{Number}$   
 $\text{of Claims} + b_{19}\text{Number of CPT Codes}$

Validity. Validity of the dependent measure, payment in full, was measured by the correlation coefficient.

Reliability. The data used in this study was second hand data. It was inferred that personnel in PAD and CCD coded data in accordance with existing procedures and regulations. "

### III. RESULTS

#### Descriptive Statistics

Descriptive statistics are displayed in Table 1. The critical value (2 tail, .05) was  $\pm .1398$ . Six variables had correlations that exceeded the critical value and were positive: age (.2602), number of claims (.5659), surgery (.1742), BC/BS (.3409), ITPE (.1574), and Oxford (.1799). Six variables had correlations that exceeded the critical value and were negative: emergency room (-.2135), AARP (-.2026), AETNA (-.2154), TROA (-.1589), Others (-.2590), and CPT code 99281 (-.2410). The correlation coefficient of the predictor variable, number of CPT codes, did not meet the critical value, therefore, the variable was discarded from further analysis.

#### Inferential Statistics

Inferential statistics are listed in Table 2. Two control variables and two independent variables were found to be significant. The two control variables were: age  $F(1, 195) = 14.40, p < .001$  and department  $F(3, 189) = 2.93, p < .05$ . These two variables accounted for 9.79 percent of the variance of payment in full of third party outpatient billings. The two independent

variables were: third party payers  $F(6, 182) = 13.55$ ,  $p < .001$  and number of claims  $F(1, 181) = 52.35$ ,  $p < .001$ . These two variables accounted for 40.43 percent of the variance of payment in full of third party outpatient billings. These four variables, age, department, third party payers and number of claims, accounted for 50.22 percent of the variance in payment in full of third party outpatient billings.

#### Acceptance or Rejection of Hypotheses

Ha1: Payment in full varies as a function of CPT code. This hypothesis is rejected.

Ha2: Payment in full varies as a function of number of CPT codes. This hypothesis is rejected.

Ha3: Payment in full varies as a function of third party payer. This hypothesis is accepted.

Ha4: Payment in full varies as a function of number of claims. This hypothesis is accepted.

Ha5: Payment in full varies as a function of followup. This hypothesis is rejected.

#### IV. DISCUSSION

The purpose of this study was to determine the effects of predictor variables; CPT code, number of CPT codes, third party payer, number of claims, and followup, on payment in full of third party outpatient billings utilizing multiple discriminant analysis.

##### Analysis of Hypotheses

Ha1: Payment in full varies as a function of CPT code. This hypothesis is rejected. While this hypothesis is rejected, the data collected suggests that there was not enough variability in the type of CPT codes utilized at BJACH to adequately test this hypothesis. Only five CPT codes were listed on bills to third party payers in this study. Table 4 shows the most frequently utilized CPT codes at BJACH and compares them to the national average. The table indicates that BJACH may be undercoding.

Ha2: Payment in full varies as a function of number of CPT codes. This hypothesis is rejected. The correlation coefficient did not meet the critical value, therefore, this predictor variable was discarded from further analysis. The data collected suggests

that there was an insufficient number of bills submitted to third party payers with multiple CPT codes listed on the bill to adequately test this hypothesis. Of the 197 records examined, only three had more than one CPT code listed to substantiate the billed charge.

Ha3: Payment in full varies as a function of third party payer. This hypothesis is accepted,  $F(6, 182) = 13.55, p < .001$ . This variable accounts for 26 percent of the variability of payment in full. This suggests that over a quarter of the variability in payment in full involves both the insurance policy coverage offered by an insurance carrier, and the type of coverage selected by the beneficiary. This may be a barrier to ever collecting payment in full for a certain percentage of third party outpatient billings. Of the 197 bills examined, 36 different insurance companies were represented.

Ha4: Payment in full varies as a function of number of claims. This hypothesis is accepted,  $F(1, 181) = 52.34, p < .001$ . This variable accounts for 13 percent of the variability of payment in full. This may suggest that initial claims received by third party payers are utilized to cover initial deductible

requirements of policy holders, once deductible requirements are met, payment in full is paid for subsequent bills.

Ha5: Payment in full varies as a function of followup. This hypothesis is rejected. While this hypothesis is rejected, followup may lead to reimbursement of some type when an initial denial of payment is made by a third party payer.

#### Other Significant Correlations

Age. This variable has a significant correlation,  $F(1, 195) = 14.40, p < .001$ . This variable accounts for 6.77 percent of the variability of payment in full. This suggests that older beneficiaries may become ill more often than younger beneficiaries, and as a result, make more visits to the MTF, making payment in full more likely. Additionally, when older beneficiaries become ill, they may have more serious health problems than younger beneficiaries, requiring more visits to a health care provider for treatment, making payment in full more likely.

Department. This variable has a significant correlation,  $F(3, 189) = 2.93, p < .05$ . This variable

accounts for 3.52 percent of the variability of payment in full. This may suggest that the charge for services provided in different departments varies. It also suggests that, depending upon the service utilized, insurance companies may require different copayments and/or deductibles from beneficiaries in an attempt to control utilization of those services.

**Nonpayment in Full**

Explanation of nonpayment in full. Examining the reasons for nonpayment in full (Table 3) suggests that insurance companies explanations for nonpayment in full of outpatient billings appear to be reasonable. Deductibles not met account for 37 percent of nonpayment in full, and policy limits account for 43 percent of nonpayment in full.

**V. RECOMMENDATIONS and CONCLUSIONS**

**Recommendations**

**Recommendation 1:** Review the entire outpatient TPCP, from data collection to receipt of payment by BJACH, to insure that each beneficiary with third party insurance is identified, the beneficiary's insurance carrier is billed, and reimbursement from the third party payer is received.

**Recommendation 2:** Contact all high volume third party payers that cover our beneficiaries to determine if there is any way to increase reimbursement received for outpatient billings. This effort has been utilized by the third party collections department to increase reimbursement from Blue Cross/Blue Shield by utilizing a particular claim form that Blue Cross/Blue Shield prefers.

**Recommendation 3:** Request a site visit, from a medical records coder from a civilian facility, to review a representative number of third party outpatient billings to determine whether BJACH is undercoding for the treatment provided to beneficiaries.

Recommendation 4: List as many CPT codes on bills as applicable to substantiate the billed charge to third party payers. Only three, or 1.5 percent, of the 197 outpatient treatment records in this study had more than one CPT code listed to justify the amount billed. While an MTF, at the present time, cannot bill separately for each CPT code, more CPT codes listed on a bill may help justify the billed charge to third party payers.

Recommendation 5: Followup on any questionable payments should continue. While payment in full may not be realized, followup may result in some type of reimbursement from a third party payer.

### Conclusions

The major implication of this study is that to maximize payment in full of third party outpatient billings, BJACH should ensure that each beneficiary with third party insurance is identified, the beneficiary's insurance carrier is billed, and reimbursement from the third party payer is received. While constraints beyond the control of BJACH may make payment in full for the majority of outpatient bills submitted to third party payers an unrealistic

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expectation, the recommendations made as a result of this study should increase the total dollars received by BJACH for use in patient care.

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Table 1

Descriptive Statistics

<u>Variable</u>	<u>Payment in full (Y)</u>		<u>Non-payment in full</u>		<u>Correlation</u>
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>	
Age	63.63	16.13	54.17	19.01	.2602*
Number of Claims	8.69	5.38	2.83	2.85	.5659*
Number of CPT Codes	1.04	.24	1.00	.00	.1189
	<u>(97)</u>	<u>n</u> <u>%</u>	<u>(100)</u>	<u>n</u> <u>%</u>	
<u>Gender</u>					
Male	35	36	41	41	.0220
Female	62	64	59	59	.0505
<u>Status</u>					
Retiree	35	36	35	35	.0220
Dependent - Retiree	53	55	56	56	-.0235
Dependent - Active Duty	9	9	9	9	.0048
<u>Department</u>					
Medicine	40	41	41	41	.0024
Surgery	31	32	17	17	.1742*

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Table 1 (continued)

Descriptive Statistics

<u>Variable</u>	<u>Payment</u> <u>in full (Y)</u>		<u>Non-payment</u> <u>in full</u>		<u>Correlation</u>
	(97)	n %	(100)	n %	
Emergency Room	8	8	24	24	-.2135*
Family Practice	18	19	18	18	-.0056

Followup

Yes	10	10	6	6	.0788
No	87	90	94	94	-.0788

Third Party  
Payer

AARP	0	0	8	8	-.2026*
AETNA	0	0	8	8	-.2154*
BC/BS	59	61	27	27	.3409*
ITPE	7	7	1	1	.1574*
Oxford	6	6	0	0	.1799*
TROA	0	0	5	5	-.1589*
Others	25	26	51	51	-.2590*

CPT Code

99211	29	30	22	22	.0901
99212	59	61	49	49	.1187
99213	2	2	4	4	-.0563
99281	7	7	25	25	-.2410*

\*Critical value (2 tail, .05) = +/- .1398

Table 2

Inferential Statistics

<u>Effect</u>	<u>R<sup>2</sup></u>	<u>ΔR<sup>2</sup></u>	<u>df1</u>	<u>df2</u>	<u>F</u>	<u>p</u>
Age	.0677	.0677	1	195	14.4042	.0002*
Gender	.0740	.0063	1	194	1.3404	.2484
Status	.0861	.0121	2	192	1.2765	.2814
Department	.1213	.0352	3	189	2.9250	.0351**
Followup	.1215	.0002	1	188	.0434	.8352
Third party payers	.3897	.2682	6	182	13.5454	.0000*
Number of claims	.5258	.1361	1	181	52.3461	.0000*
CPT code	.5316	.0058	3	178	.7307	.4651

\*p&lt; .001

\*\*p&lt;.05

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Table 3

Description of Nonpayment in Full by Third Party Payers

<u>Third party payer</u>	<u>Reasons for nonpayment in full</u>				
	(n=100)				
	Deductible not met	Copayment requirement	Service not covered	Policy limit	Preexisting illness
	-----	-----	-----	-----	-----
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
AARP	0	0	1	7	0
AETNA	20	3	2	1	0
BC/BS	4	4	1	0	0
TROA	0	0	0	5	0
Others*	13	5	3	30	1
	-----	-----	-----	-----	-----
Totals	37	12	7	43	1

\* ITPE and Oxford are included in "Others" in this table.

Table 4

Comparison of BJACH CPT Code Utilization with the  
National Average

<u>Code</u>	(n=100)	
	<u>National average</u>	<u>BJACH average</u>
	<u>%</u>	<u>%</u>
99211	1.94	29.00
99212	9.87	65.00
99213	76.67	6.00
99214	7.99	0.00
99215	3.53	0.00

\*Source: Michaelman, M.S. (1992). The good news and bad news about RBRVS: A physicians's perspective. Foundation of the ACHE. Lecture. Atlanta, GA.

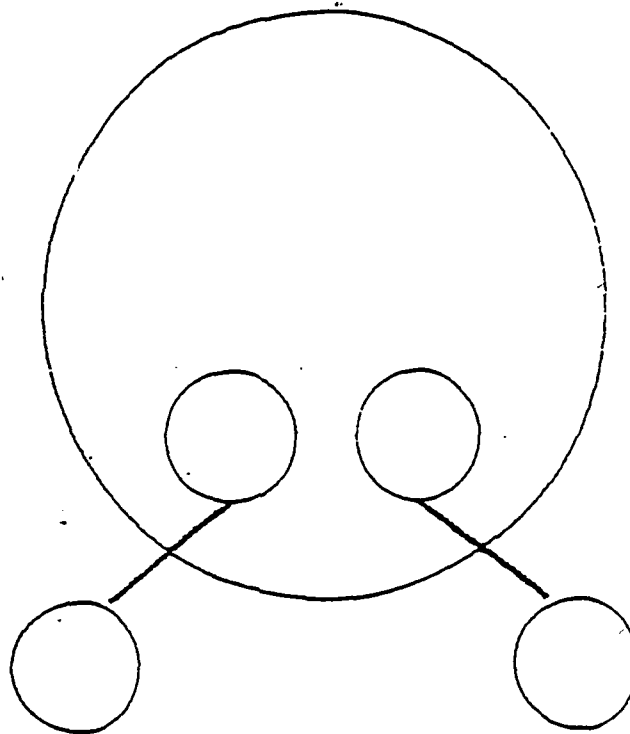
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Figure 1

Diagram of Selection of Sample

Population

$N = 1,996$



$n(\text{payment in full}) = 97$

$n(\text{control}) = 100$

$n(\text{total}) = 197$

Figure 2

Diagram of Results of Regression

## Prediction of Payment in Full

CPT code	*R <sup>2</sup> .5316
	**ΔR <sup>2</sup> .0058
Number of claims	R <sup>2</sup> .5258
	ΔR <sup>2</sup> .1361
Third party payer	R <sup>2</sup> .3897
	ΔR <sup>2</sup> .2682
Followup	R <sup>2</sup> .1215
	ΔR <sup>2</sup> .0002
Department	R <sup>2</sup> .1213
	ΔR <sup>2</sup> .0352
Status	R <sup>2</sup> .0861
	ΔR <sup>2</sup> .0121
Gender	R <sup>2</sup> .0740
	ΔR <sup>2</sup> .0063
Age	R <sup>2</sup> .0677

\* R<sup>2</sup> = coefficient of determination\*\* ΔR<sup>2</sup> = change in the coefficient of determination

**APPENDIX - Definitions**

**AARP - AARP Group Health Insurance**

**AETNA - AETNA Health Plans**

**BC/BS - Blue Cross/Blue Shield of Louisiana**

**ITPE - ITPE-MEBA/NMU Health and Welfare Fund**

**TROA - The Retired Officers Association Mediplus**

**Oxford - Oxford Life Insurance Company**

**Others - Administrative Services of Lake Charles, AFSA Flightcare, Air Force Association, American General Life and Accident Insurance Company, American Travellers Life Insurance Company, APWU Health Plan, Bankers Life and Casualty, Boise Cascade Corporation, Commonwealth National Life Insurance Company, Dallas General Life Insurance Company, Government Employees Hospital Association, ITT Hartford Insurance Company, Jefferson Pilot Corporation Group Health Program, Legionnaire Insurance Trust Program, Louisiana State Employees Group Benefits Program, Lufkin Industries, Mail Handlers Benefit Plan, Merchants and Farmers Bank, Metropolitan Life, Montgomery Ward Insurance, Monumental Life Insurance Company, Mutual of Omaha, National Association of Letter Carriers Health Benefits Plan, Pioneer Life Insurance Company, Standard Life and Accident Insurance Company, United American Insurance Company, United Services Association, Vernon Parish School Board Group Health Program, and Walmart Associates**

**99211 - "Office or other outpatient visit for the evaluation and management of an established patient, that may not require the presence of a physician.**

Usually, the presenting problem(s) are minimal. Typically, 5 minutes are spent performing or supervising these services (CPT, 1992)."

99212 - "Office or other outpatient visit for the evaluation and management of an established patient, which requires at least two of these key components: a problem focused history; a problem focused examination; straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are self limited or minor. Physicians typically spend 10 minutes face-to-face with the patient and/or family (CPT, 1992)."

99213 - "Office or other outpatient visit for the evaluation and management of an established patient, which requires at least two of these key components: an expanded problem focused history; an expanded problem focused examination; medical decision making of low complexity. Counseling and coordination of care are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of low to moderate severity. Physicians typically spend 15 minutes face-to-face with the patient and/or family (CPT, 1992)."

99214 - "Office or other outpatient visit for the evaluation and management of an established patient, which requires at least two of these three key components: a detailed history; a detailed examination; medical decision making of moderate complexity. Counseling and/or coordination of care with other providers of agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity.

Physicians typically spend 25 minutes face-to-face with the patient and/or family (CPT, 1992)."

99215 - "Office or other outpatient visit for the evaluation and management of an established patient, which requires at least two of these three key components: a comprehensive history; a comprehensive examination; medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 40 minutes face-to-face with the patient and/or family (CPT, 1992)."

99281 - "Emergency department visit for the evaluation and management of a patient, which requires these three key components: a problem focused history; a problem focused examination; and straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are self limited or minor (CPT, 1992)."